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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,045	02/09/2000	Glenn T. Colon-Bonet	10971158-1	3338

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EXAMINER

DO, CHAT C

ART UNIT	PAPER NUMBER
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2124

DATE MAILED: 01/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/501,045

Applicant(s)

COLON-BONET, GLENN T.

Examiner

Chat C. Do

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondenc address --

Peri d f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2002 and 04 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 05 November 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6-10, 12-16, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Yetter (U.S. 5,389,835).

Re claim 1, Yetter discloses in Figures 8A-8B an apparatus (800A) performing the addition of a PKG recoded number (table D in col. 11) comprising a circuitry configured to receive at least a first value (Ci) and a second value (intermediate vector variable of A and B) wherein second value is at least one of a P value, a K value, and a G value of a PKG recoded number (table D in col. 11) and wherein circuitry generates a sum (S) value a carry value (Co).

Re claim 2, Yetter discloses the sum value and carry value are dual rail encoded values (col. 14 lines 12-13).

Re claim 3, Yetter discloses the above apparatus comprising a first adder in Figure 3 configured to add first value (a) and second value (b). The first adder generates a carry-out value (output vector Cout in Figure 4) and at least one of a P value, a K value, and G value of a PKG recoded number (output vector O).

Re claim 4, Yetter discloses the above apparatus comprising in Figure 4 a second adder in Figure 4 configured to add PKG value (I) from first adder and a carry-in value (Cin).

Re claim 6, Yetter discloses the above apparatus comprising a recoder in Figure 3 configured to convert at least one dual rail encoded value into second value (table D in col. 11 and col. 12 lines 5-13).

Re claim 7, it is the method claim of claim 1. Thus, claim 7 is rejected under the same rationale in the rejected claim 1.

Re claim 8, it is the method claim of claim 3. Thus, claim 8 is rejected under the same rationale in the rejected claim 3.

Re claim 9, it is the method claim of claim 4. Thus, claim 9 is rejected under the same rationale in the rejected claim 4.

Re claim 10, it is the method claim of claim 2. Thus, claim 10 is rejected under the same rationale in the rejected claim 2.

Re claim 12, it is the method claim of claim 6. Thus, claim 12 is rejected under the same rationale in the rejected claim 6.

Re claim 13, it is the apparatus claim of claim 1. Thus, claim 13 is rejected under the same rationale in the rejected claim 1.

Re claim 14, it is the apparatus claim of claim 3. Thus, claim 14 is rejected under the same rationale in the rejected claim 3.

Re claim 15, it is the apparatus claim of claim 4. Thus, claim 15 is rejected under the same rationale in the rejected claim 4.

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Re claim 16, it is the apparatus claim of claim 2. Thus, claim 16 is rejected under the same rationale in the rejected claim 2.

Re claim 18, it is the apparatus claim of claim 6. Thus, claim 18 is rejected under the same rationale in the rejected claim 6.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 11, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yetter (U.S. 5,389,835), as applied above, in view of Beck et al. (U.S. 6,055,557).

Re claim 5, Yetter does not disclose first value is at least one of a P value, a K value, and a G value of a PKG recoded number. However, Beck et al. disclose in Figure 3 that the first value (Ck[0], Cp[0], and Cg[0] in 800) and the second value (Ck[1], Cp[1], and Cg[1] in 800) are at least one of a P value, a K value, and a G value of a PKG number. Therefore, it would have been obvious to an ordinary person in the art at the time the invention is made to input the first value in the form of at least one of a P value, a K value, and a G value of a PKG number into the circuitry in Yetter's invention because it would enable to perform more than two operands.

Re claim 11, it is the method claim of claim 5. Thus, claim 11 is rejected under the same rationale in the rejected claim 5.

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Re claim 17, it is the apparatus claim of claim 5. Thus, claim 17 is rejected under the same rationale in the rejected claim 5.

5. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beck et al. (U.S. 6,055,557) in view of Yetter (U.S. 5,389,835).

Re claim 19, Beck et al. disclose an apparatus performing the addition of PKG numbers in Figures 1 and 3 comprising a circuitry (300) configured to receive at least one of a P value, a K value, and a G value of a first PKG number (Ck[0], Cp[0], and Cg[0] in 800) and at least one of a P value, a K value, and a G value of a second PKG number (Ck[1], Cp[1], and Cg[1] in 800) wherein circuitry (300) generates a carry value (Cprop) and at least one of a P value, a K value, and a G value (Figure 8). Beck et al. do not disclose that the value of P, K, G is from PKG decode number. However, Yetter discloses in table C and table D the value of P, K, G is from PKG decode number. Therefore, it would have been obvious to an ordinary person in the art at the time the invention is made to input the P, K, G from PKG decoder number into the circuitry in Beck et al.'s invention because it would enable to perform addition calculation in dual rail encoded.

Re claim 20, it is the apparatus claim of claim 19. Thus, claim 20 is rejected under the same rationale in the rejected claim 19.

Re claim 21, it is the apparatus claim of claim 19. Thus, claim 21 is rejected under the same rationale in the rejected claim 19.

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Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. U.S. Patent No. 5,493,524 to Gutttag et al. disclose a three input arithmetic logic unit employing carry propagate logic.
- b. U.S. Patent No. 5,208,490 to Yetter discloses a functionally complete family of self-timed dynamic logic circuits.
- c. U.S. Patent No. 5,694,350 to Wolrich et al. disclose a roundind addder for floating point processor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (703) 305-5655. The examiner can normally be reached on M => F from 7:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chaki Kakali can be reached on (703) 305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Chat C. Do
Examiner
Art Unit 2124

January 2, 2003



**CHUONG DINH NGO
PRIMARY EXAMINER**